How Office Based Gynaeco-Oncologists in Germany Apply Antiemetic Guidelines in AC-Containing (Neo) Adjuvant Chemotherapy for Breast Cancer

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Introduction
Guidelines for supportive care in oncology are an important instrument to secure treatment quality and to maintain the quality of life of cancer patients. Despite their broad availability and high level of awareness however, there are considerable limitations to the application of antiemetic guidelines. Similarly, doctors may not always be aware of changes in the implemented guideline. The German Professional Association of Gynaeco-Oncology in Practices (BNGO) is dedicated to quality-assured out-patient treatment of patients with gynaecologic tumors. Therefore, we conducted this survey on the awareness and practical usage of antiemetic guidelines in BNGO practices of Gynaeco-Oncology. In total, 48 practices took part in the survey.

Objectives
Goal of this survey was to obtain information on the awareness of different national and international antiemetic guidelines and to evaluate their application in practices of Gynaeco-Oncology in breast cancer patients who receive adjuvant or neoadjuvant chemotherapy with an anthracycline (adriamycin = A; or epirubicin = E) and cyclophosphamide (C).

Background
The 2011 updated guidelines of the American Society of Clinical Oncology (ASCO) [Basch E et al. J Clin Oncol 2011;29(31):4189-98] have classified the combination of anthracyclines and cyclophosphamide as high emetogenic chemotherapy (HEC), although single-agent anthracyclines as well as single-agent cyclophosphamide have only a moderate emetogenic risk. These regimens are frequently used as adjuvant and neoadjuvant chemotherapy in breast cancer. Younger age and female gender of the patients are considered additional risk factors for nausea and vomiting during chemotherapy, which has contributed to the change of the guideline.

Materials and methods
From October 2012 until April 2013, demographic data as well as data on real life antiemetic therapy have been recorded in 48 German Gynaeco-oncologic practices using the specific ODM Quasi® GYN System. 250 breast cancer patients with a median age of 58 years received AC or EC containing adjuvant (81% of patients) or neoadjuvant (19% of patients) chemotherapy. Until April 2013, the documentation of all 250 patients has been completed for the first chemotherapy cycle. 143 patients have also received the third chemotherapy cycle. The documentation involves demographic data of patients and a questionnaire about doctor’s knowledge and theoretical application of antiemetic practice. Furthermore patient data about the applied chemotherapies (figure 1) and the real antiemetic practice and the practical adherence to the guidelines were documented.

Results
In general the guidelines are well known by the participating BNGO-doctors. The ASCO guideline is the best known guideline in BNGO-practices (81%), followed by the recommendations of the German Working Group Gynaecologic Oncology (AGO) (77%), and the NCCN (31%). The least known guideline is the MASCC/ESMO guideline (23%). In daily practice, antiemetic treatment is mostly applied according to the AGO-recommendations (58%), followed by ASCO (50%), MASCC/ESMO (13%), NCCN (8%), others (2%) or is not based on any guideline at all (2%) (figure 2).

Conclusion
Although approximately 81% of the doctors who participated in the survey are aware of modern antiemetic guidelines, these guidelines were only applied in 33% of patients in the first cycle of AC-based chemotherapy. There were no significant changes in the treatment behavior between the first and the third treatment cycle, which implies that the doctors in general were satisfied with their antiemetic treatment strategies.

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